

## Study of Group A $\beta$ -Hemolytic Streptococci Colonization and Resistance Drug of Isolates on 12-14 Year Old Healthy Students of Aras Free Zone Schools

Mehdi Ghaffari<sup>\*1</sup>; Seyyed Reza Moaddab<sup>2</sup>; Abdolnasser Rafi<sup>2</sup>; Mehdi Roshdi Maleki<sup>3</sup>

1- Department of Microbiology, Faculty of Basic Medical Science, Zanjan Branch, Islamic Azad University, Zanjan, Iran

2-Pramedical Faculty and Center for TB and Pulmonary Diseases, Tabriz University of Medical Sciences, Tabriz, Iran

3-Department of Microbiology, Islamic Azad University, Malekan, Iran

aydin\_tr2002@yahoo.com

**Background & Objectives:** Group A  $\beta$ -Hemolytic Streptococci are the most prevalent pathogenic bacteria that can cause rheumatic fever and acute glomerulonephritis in adolescents so its correct diagnosis and treatment is very important.

**Methods:** This study was done with multi stage random sampling Methods between three hundred 12-14 year old healthy students in Aras Free Zone guidance schools. Sixty seven group A  $\beta$ -Hemolytic Streptococcus (GABHS) strains were isolated and were tested with disc diffusion Methods against sixteen antibiotics including Penicillin, Erythromycin and some second line drugs such as Amoxicillin, Ampicillin, Co-amoxiclav, Tobramycin, Gentamicin, Clindamycin, Vancomycin, Tetracycline, Cotrimoxazole, Cloxacillin, Cephalothin, Cephalaxin, Cefazolin, Cefixime.

**Results:** This study indicated that of 300 students, 22% were healthy carriers of GABHS. Of 67 healthy carriers, 17 cases (27%) were female students of first base class that was the highest rate, whereas 4 cases (8.5%) were female students of second base class that was the lowest rate. All of GABHS strains (100%) were sensitive to Penicillin and resistance to Cotrimoxazole and Clavulanic acid were detected up to 92% and 89% respectively.

**Conclusion:** Our results showed that prescription of second line drugs must be prescribed more cautiously.

**Keywords:** Group A  $\beta$ -Hemolytic Streptococci; Bacterial Resistance; Aras Free Zone